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ABSTRACT

Developed by the Oregon Elementary English Project for grades three and four, this first of two units on communication systems examines some systems which function without the use of human language, i.e., highway signs, trail signs, railroad signals, and facial expressions and gestures. After having identified concepts about communication systems, the students develop a communication system of their own to show that only people who know the system can use the system and that communication systems make use of arbitrary signals. In the final lesson, students discover that human language is a system that enables them to do things they can't do with other systems. Each of the six lessons is accompanied by an explanation of its purpose, suggested materials and procedures, and suggestions for extension exercises. Supplementary materials include both an envelope containing charts, pictures, and instructions for additional projects and a tape on sounds, signals, and settings. (For the second unit on communications systems, see ED 200 483.) (See CS 200 484-499 for related documents.) (HS)

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ED 075824

Language Curriculum, Level C

Unit I

COMMUNICATION SYSTEMS

Developed under contract with the
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Unit I
Communication Systems

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UNIT 1
COMMUNICATION SYSTEMS
(six lessons)

BEFORE BEGINNING BE SURE YOU HAVE:

1. A tape recorder
2. The tape labeled "Sounds, Signals, and Settings"
3. Student lessons 1, 2, 3, 4, 5, and 6
4. Supplementary material:

   for lesson 1: chart of Indian signs to be used on overhead or made into a wall chart
   for lesson 2: set of cards with pictures which are used for signs
   for lesson 3: chart of facial expressions to use on overhead
   for lesson 5: key to whistle signals and lantern signals to be used on overhead or made into a wall chart
   for lesson 6: picture of TV announcer to use on overhead

5. Yellow construction paper for making lanterns in lesson 5 (optional)
6. Props for use in TV commercials in lesson 6
7. Imagination

PURPOSE:

1. To zero in on human language as a communication system and to help children begin to comprehend what a wonderful system it is

2. To identify some characteristics of communication systems by examining several different systems used by humans

3. To help students discover that they can do much more with human language than with other systems

WHAT YOU NEED TO KNOW TO TEACH THIS UNIT:

Although it is possible to begin the language strand with several different units and to follow several different sequences, this unit should logically be taught before Unit 2. It develops concepts which are built upon in Unit 2 and the two of them complement each other. Together they should help students become aware of human language and to develop an appreciation for it.

BACKGROUND INFORMATION:

Language seems to be a way of making the thinking process external. It is, of course, a communication system, but it is also often used simply as a means of self-expression when communication is not necessarily involved. It is language as communication, however, that we are concerned with in this unit.

When considering language as a communication system, it is important to remember that language is not the only means of communication used by man. Examining other systems helps us to identify the characteristics of human language and to discover what makes it unique. Some characteristics of communication systems--which are also shared by human language--are the following:

1. Communication systems make use of arbitrary symbols. That is, they use signals of some kind to which meaning is attached, but there is no necessary relationship between the signals and the meaning. Indians use the symbol to mean permanent home. They could just as well have used another symbol. Human speakers of English use the word dog to mean a certain species of four-legged animal, but there is no reason why that particular word should be used rather than another, as long as the people using the language understand the same meaning for the word.

2. A communication system can function only when the people using it understand the meaning attached to the signals and also understand how they are put together in systems where they are combined.

3. Many communication systems consist of signals that can be combined in various ways to make different messages. This makes it possible to have more messages than signals. In the system of railroad signals a long and short whistle are combined in various ways to make many different messages. This is also true of human language. For example, the following set of words can be combined in eight different ways to make eight different messages:

   The large cat has seen the small bird.

4. Many communication systems are limited in what they can do. That is, they can be used to communicate only about what is right at hand or occurring at the moment or what is concrete. Many can produce only a limited number of messages. But human language is an unlimited system. It enables us to communicate about things far away in both time and space,

as well as about what is abstract and unreal. It is capable of communicating an unlimited number of messages.

RESUMÉ:

The unit first examines some communication systems which function without the use of human language. That is, we can use them "without saying a word." They are trail signs; highway signs; facial expressions and gestures; and railroad signals. Students learn indirectly about some characteristics of communication systems--which are also characteristics of human language. The concepts about communication systems which they have identified are reinforced in lesson 4, in which they work out a communication system of their own. As they proceed through the unit, they think about things they can't communicate by means of the various systems, until in the final lesson they discover that human language is a system that enables them to do things they can't do with the other systems. Throughout you should watch for opportunities to emphasize the various characteristics of communication systems and to compare each system with human language.

BIBLIOGRAPHY: (student level)

Alexander, Arthur. The Magic of Words. Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1962.

Andrews, F. Emerson. Numbers, Please. Little, Brown & Co., Boston, 1961.

Bendick, Jeanne and Marcia Levin. Take A Number. Whittlesey House, McGraw-Hill, New York, 1961.

Epstein, Beryl and Sam Epstein. First Book of Words. Franklin Watts, Inc., New York, 1954.

Frasconi, Antonio. See Again Say Again. Harcourt, Brace & Co., New York, 1955.

Hautzig, Esther. At Home, A Visit in Four Languages. The Macmillan Co., New York, 1968.

Lauber, Patricia. The Story of Numbers. Random House, New York, 1969.

Rogers, James T. The Pantheon Story of Mathematics for Young People. Pantheon Books, New York, 1966.

TRAIL SIGNS

PURPOSE:

To show students that signs can be used in order to communicate with if the people using them have a common agreement about what they mean.

MATERIALS:

Wall chart or overhead of Indian signs to be made from the page in the Supplementary Material

Lesson 1, "Trail Signs" in the student material, to be passed out to each student.

SUGGESTED PROCEDURE:

1. Here are three different ways in which you might introduce the lesson:

   a. Before passing out the student lesson you might display the wall chart (or overhead) of Indian signs and talk about what they mean.

   b. You could make individual sheets of the signs used in the story for each student and, before showing the chart, ask them to suggest what the signs might mean, and then compare them with the chart.

   c. You might start by selecting certain instructions such as "Danger," "Go to the right," "Go to the left," "You are on the trail," etc., and ask students to make up some signs that could be used to give these instructions. Then you could introduce the chart and show signs the Indians actually used.

Important: Whatever way you use, discuss the following questions:

Why do you think the Indians used these signs? (Introduce the word communicate and try to bring out the idea that the signs were used for communicating. Students might like to suggest situations when it would be necessary to use the signs to leave messages.)

How did the Indians know what the signs meant? (Lead students to see that the people using the signs had to agree on what they meant.)

2. Pass out the story and read with your students. Discuss such questions as the following:

   Why was the Indian able to find his way home? (He understood the trail signs.)

   Do you think that everyone who saw the signs would know what they meant? Why or why not? (No, only those who had previously learned the meaning.)

3. Have students look at the Boy Scout trail signs which follow the story and try to decide which of the suggested meanings belongs to each sign. The meanings of the signs are:

means "Danger"

means "Take the right fork"

means "Camp"

means "Keep going"

If you have Cub Scouts in your class, they may already know what the signs mean. They may also be able to tell the class about other trail signs the Scouts use. Don't forget the Brownies or Bluebirds. They may also have learned something about trail signs and can add to the discussion. Again emphasize the fact that if we don't know the meaning of the sign we can't use it.

EXTENSION ACTIVITY:

A game using trail signs to play on the school grounds.

Students are to take the part of Indians. The boys will be hunters out looking for wild game. The girls are to be the women of the tribe who follow the men to pick up the meat for cooking. There should be no direct contact between the two groups while they are out. Without writing, the hunters are to leave signs letting the women know:

1. where they have gone
2. what kind of game they are tracking
3. how many animals they are after

You might want to provide some rocks and twigs to use for signs. When the women come across the signs they are to try to figure out what they mean. At the end of a specified time, the hunters and the women will return to the classroom.

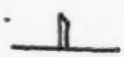
Then have the women tell about the signs they found and what they think they meant. The hunters can say whether their messages were "read" correctly or not and what they had intended to say.

If there has been a breakdown in communication, let students discuss why this has happened. Use the occasion to point to the conclusion that the signs are useful only if all the people using them--both those who prepare the signs and those who find them--understand the same thing by them.

TRAIL SIGNS

An Indian hunter came out of the forest. He could not see the other hunters anywhere. He looked around to see if there was any message for him. This is what he saw:

two stones



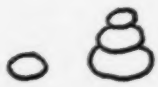
stick in the ground

He knew these were signs for him. They meant, "You have found the road."

But which way should he go? He looked again. He noticed something else. It looked like this:

He turned to the right. He knew the Indian communication system. He must go to the right a long way.

After a long way he came to another trail sign. It looked like this:



He moved very carefully and quietly. He knew this was the sign for, "Danger! Turn left."

When he went down the trail he soon saw another sign.

It meant, "You are a short way from home." He could see the smoke from the campfires. He was glad that he knew the meaning of the trail signs.

More Signs

The Boy Scouts of America have adopted many of the Indian trail signs. Here are some they use:

1. 2. 3. 4.

Which of these Boy Scout signs do you think might be used to leave the following messages?

"Danger, this is not the road."
"This is the road. Keep going."
"I have gone back to camp."
"Take the right fork of the trail."

Fun with signs:

Draw some signs you think the Indians might have used.
Label the signs so that your classmates will know what the signs mean.
Use the signs to leave some messages for your classmates.
See if they can understand your messages.

Words for your word bank:

DO YOU KNOW WHAT I KNOW?

PURPOSE:

To show students that we can communicate by means of visual signs, sounds, or gestures if we have a common meaning for them.

MATERIALS:

Tape labeled "Sounds, Signals, and Settings," part 1

Lesson 2, "Do You Know What I Know?" in the student material, to be passed out to each student

A set of cards with pictures of signs to which we attach meaning; in the Supplementary Material. They can be used for an extension exercise.

SUGGESTED PROCEDURE:

1. To introduce the lesson you might remind students of the trail signs used by Indians. The following questions could be discussed briefly:

   Are there any other signs which we use today to give messages to other people?

   Today we usually travel on roads, not trails. Are there any road signs which we use to give messages?

2. Remind students of the words communicate and communication.

3. After a brief discussion, pass out student lesson and read the introductory paragraphs. Students should work in pairs. Each one should write down what he thinks the seven road signs on page 1 mean and then trade papers with his partner to see if they agree. (There should be substantial agreement, since these are common signs.) The commonly assigned meanings are:

   1. either stop or go
   2. right hand lane must turn left
   3. don't pass
   4. curves ahead

5. the road narrows (lane ends)
6. a railroad crossing ahead
7. a school crossing, go slow

Emphasize that the reason we can use such signs to communicate with is that most people agree on their meanings.

4. To reinforce the concept that we must agree on the meaning of signs if they are to be used to communicate, have students say what the signs on page 2 tell them. This can be done orally. Have them suggest other signs. Point out that all of these signs are ones which we can see--they are visual signs.

5. In preparation for playing the tape, ask students if they can think of any sounds that we use to communicate with. Play the tape, pausing as long as necessary after each sound to discuss the questions that are asked on the tape. (They are reprinted below. Comments will vary but there should be a common meaning for each. Emphasize that this is why these sounds communicate.)

   Questions on tape:

   1. What do you know when you hear the knocking? (That there is someone at the door who wishes to talk to us)

   2. What does the siren tell you? (That there is a fire or accident and all the cars should get out of the way).

   3. What does the shushing sound say to you? (To be quiet)

   4. What does the ring of the telephone tell you? (That someone is on the other end of the line and wants to talk to someone on our end)

   5. What does the sound of applause tell you? (That the people clapping like what they have heard)

6. The final section "Another way to communicate" introduces the concept that gestures and facial expressions can be used for communicating. It serves as preparation for lesson 3 in this unit. (The term gesture will not be introduced until that time.) You might have students work in four groups, each taking one of the pictures to discuss and report on. In each case, point out that the people are communicating by something they are doing with their bodies.

After students have come up with answers to the questions (e.g., "She doesn't like something or someone," "She's got an angry look," "She's scowling and stamping her foot," etc.,) have them demonstrate how they might give messages by using their bodies. They could demonstrate gestures for "Come here," "Go away," "Get up," "I don't know." You might want to illustrate some other gestures and ask students to tell you what they mean.

7. Conclude the lesson by having students tell you three ways they have found that people can communicate. The pictures at the bottom of page 3 can serve as reminders. You might want to put the last statement on the board and have students tell you how to fill the blanks. (We can communicate with signs we can see; sounds we can hear; or by the way we move parts of our bodies.)

EXTENSION EXERCISE:

The set of cards containing pictures of various signs to which we attach a common meaning can be used individually by students. The object would be to see how many they can interpret.

Pairs of students could play a game with the cards by taking turns picking out cards and seeing who can give the most meanings.

DO YOU KNOW WHAT I KNOW?

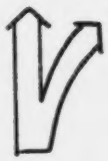
If you understand your friend and he understands you, you communicate.

Here are some signs you might see on a highway or street. They are modern trail signs. Do they communicate to you? Write down what each says to you. Then trade your paper with a partner to see if you agree.

1.

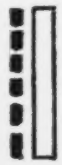
a sign over the street

2.



a sign painted on the highway

3.



a solid line and a broken line on the highway

4.

5.

6.

7.

signs beside the highway

Why can we communicate with these signs?

Here are some other signs you might see. Do they communicate? What do they tell you?

1.

a red and white pole in front of a building

2.

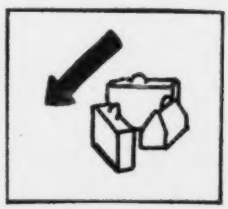
signs on doors

3.

a sign in a hall

4.

a sign on the highway

5. 

a sign in an airport

Can you think of some other signs like these?
When can we use them to communicate?

Sounds That Communicate

We can communicate with signs that we see if we all know what they mean. Now listen to some sounds on a tape. See if they communicate anything to you. Find out if they say the same thing to your classmates.

Another Way to Communicate

What do you know about this girl?
How do you know?

What is the nurse telling us?
How is she doing it?

What is the policeman telling the drivers?
What is he telling the people?
How is he doing it?

What is the boy telling his friend in the car?
How is he doing it?

You have found three different ways people can communicate? What are they? These three pictures will give you some clues.

People can communicate with _____ they can see; _____they can hear; or by the way they move parts of their _____.

WITHOUT SAYING A WORD

PURPOSE:

1. To help students learn that we can communicate without words by using gestures and facial expressions.

2. To establish that both the sender and receiver must understand the gestures in order to communicate.

MATERIALS:

Student lesson "Without Saying a Word" to be distributed to each student

Chart of various kinds of facial expressions to put on the overhead or to duplicate for students in the Supplementary Material

SUGGESTED PROCEDURE:

1. To begin you might show the chart of facial expressions on the overhead, or copy it on the board, or have it duplicated for each student. (See Supplementary Material) Ask:

   What is each face saying to you?

   and encourage students to discuss how the position of the eyebrows and mouth can tell us something about what people are feeling or thinking. You should get such responses as "This is a happy fellow," "This one is sad," etc. Point out that this is a way of communicating. You should define the word facial.

2. On separate slips of paper print the following instructions and choose different students to give them to. Tell them they are going to do what the instruction tells them, and the rest of the class is going to try to interpret the message.

   1. Without saying a word, tell someone to "be quiet."
   2. Without saying a word, tell someone to "come closer."
   3. Without saying a word, tell someone to "go away."
   4. Without saying a word, tell someone "yes."
   5. Without saying a word, tell someone "no."

   You may want to add other messages that can be communicated by gestures.

Again point out that by moving parts of our bodies we can communicate without saying a word.

3. Pass out the student lesson and read through the first section with your students or have a student read it aloud. Stop to discuss each question, and comment on the word gesture.

4. Copy the chart in the student lesson on the board and have students help you list various facial expressions and gestures which we use to communicate without saying a word. Include the various gestures the students have already demonstrated or talked about.

   Then list some things that we cannot communicate with facial expressions and gestures. To get students started you might suggest a few, such as "a desire to go to a movie"; "a memory of a happy birthday"; "instruction about how to get to someone's house"; etc. You might ask what we must use to communicate messages of this kind. Keep this list for use in lesson 6.

5. Finally have students look at the pictures of the two gestures in section 3 of the student lesson. Use them to discuss the fact that people who use gestures to communicate with must have the same meaning for the gestures. It doesn't matter what the meaning is as long as those who use it have the same understanding for it.

EXTENSION ACTIVITIES:

1. Divide students into small groups and have them plan and act out, without saying a word, a situation for their classmates that will show excitement, pain, or anger.

2. You might have your students become face watchers and keep a list of the things they learn about people from watching their facial expressions.

Communication Systems
Lesson 3
Student

Language C

WITHOUT SAYING A WORD

1. We can tell other people many things without saying a word. Facial expressions tell us many things. The way we move parts of our bodies tells us many things too. These body movements are called gestures.

What does each of these faces tell you?

What does your classmate tell you if he does the following things?

1. You ask him, "What time is it?" He shrugs his shoulders.
2. He waves to you as he gets into a car.
3. He frowns when he looks at the food on his plate.
4. He smiles when it's time for music.

2. Help your teacher make a list of gestures and facial expressions we can use to communicate without saying a word. Use a chart like this:

facial expression	what it tells us	gesture	what it tells us
smile	someone is happy	shrug	

Now, list some things that might be hard to say with facial expressions and gestures.

3. This is a picture of a gesture.
To a child in France it means, "Come here."
What does it mean to you?

This is a picture of another gesture.
In France it means, "Goodbye."
What does it mean to you?

If your friend can understand your gestures and you can understand his, what do you both have to know?

Words for your word bank:

WORKING OUT A SYSTEM

PURPOSE:

To help students learn that only people who know the system can use the system and that communication systems make use of arbitrary signals.

MATERIALS:

Student lesson "Working Out a System" to pass out to each student

SUGGESTED PROCEDURE:

(Note: This lesson could take several days and should allow for creative and imaginative activities.)

1. Before handing out the student lesson, be sure students understand what it means to assign a special meaning to some object and then use it as a signal for communicating. To help them you might play a game in which certain objects have a special meaning and are used as signals. For instance, you might hold up a white piece of paper which could mean that the students could move quietly around the room. You might have a red sheet of paper which could mean "freeze in your tracks" when it was held up. And a third color might mean sit down; etc. Together, the signals would make up a communication system. You may need to review the meaning of communication, gesture, and system.

2. Hand out the student lesson. Read through the first section with the whole class. The pictures of objects given are examples, and the questions are designed to help students understand how to go about working out their own system. You might want to list their answers on the board. Have the students choose partners to work with and let each pair work out their own system.

   An alternative approach might be to let each student start individually and then discover that he can't communicate unless a friend or friends know the meaning he has attached to his signals.

3. After students have had ample time to work out their systems and try them out, have them try to communicate with other pairs and with the class as a whole. Discuss the reasons why others cannot understand their system. (They don't know the meaning that has been given to the signals. Only those who know the meanings can use the system.)

4. When you are ready to proceed to part 2 of the student lesson, have the students, either individually or in pairs, decide upon some gestures for the messages listed in the lesson. Then combine their gestures, and with the whole group work out a class communication system. You will want to add other messages to the ones in the lesson. Use the system within the classroom over a period of time so that students can use it easily.

5. At some point discuss why it is important for the whole class to assign the same meanings to the signals and gestures. Help them see that they could have used other signals and gestures as long as they all agreed on the meanings.

POSSIBLE EXTENSION:

Students might enjoy sharing their system with another class. Before doing so, ask if they think other classes could understand their system. and if others could learn their system. Then have them try it out and see.

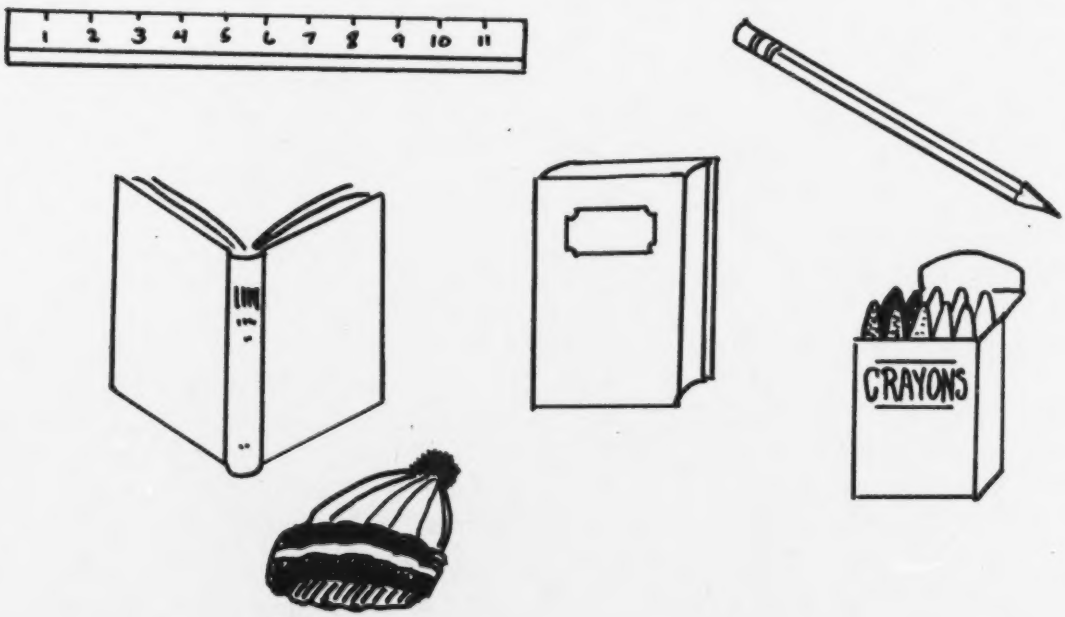
Communication Systems
Lesson 4
Student

Language C

WORKING OUT A SYSTEM

1. With a friend, you are going to work out a system that will be your very own way of saying something without words. You will use it to play a communication game.

Begin by picking out some objects you have close at hand. Give a special meaning to each one. You might decide to use the following objects:



a. Which object could you use to mean, "Let's read a story"?
b. Which object might mean, "Write me a note"?
c. Which object might let you know, "Reading is finished"?
d. What object suggests, "It 's time to go home"?
e. What meaning could be given to the crayons?
f. Which object would you use to say, "It's 12 o'clock and time for lunch"?

Now, work out your own system and when you get it worked out use it to communicate with your friend.

2. Decide upon some gestures that can be used to communicate the following messages:

"Hurry"	"Time for recess"
"Slow down"	"Line up"
"Library time"	"Clean-up time"
"Music time"	"Let's hear a story"

Share your choices with your classmates, and, with your teacher's help, work out a class communication system.

RAILROAD SIGNALS

PURPOSE:

1. To give students practice with a communication system in order to reinforce the concept that to use a system we must know the meanings assigned to the signals; and

2. To introduce the concept that in some communication systems the meaning depends on the way parts are put together.

MATERIALS:

The tape labeled "Sounds, Signals, and Settings, part 2

Student Lesson 5, "Railroad Signals," to be passed out to each student

Keys to the whistle signals and lantern signals to use on a wall chart or put on the overhead. (See Supplementary Material.) They are also found in the student lesson.

Construction paper for making lanterns (optional)

Instructions for making lanterns (Supplementary Material)

SUGGESTED PROCEDURE:

(Note: This lesson should take several days. If you plan to use a wall chart or overhead of the keys, put them up before beginning the lesson.)

Section 1

1. To get students in the mood for thinking about trains, you might have them sing some train songs such as "Down at the Station" and "The Little Red Caboose."

2. Hand out student lesson without calling attention to the keys. Have different students read the lesson, paragraph by paragraph, or read it to them, pausing to carry out the instructions and answer the questions. Let students practice making long and short toots at random and then have them try out Engineer Joe's toots.

3. Read through the key to the system, letting students try out the various signals both individually and in unison. Then have them use the key to find out what the messages mean.

   (1) Release brakes. Stop. (2) Protect rear of train; and (3) Approaching station. Point out that this is a communication system which uses only two signals (a long and a short toot) but combines them to make many messages. Let students experiment with making others.

4. Play the tape and have the students try to interpret the messages, using the key.

Section 2

1. In preparation for section 2, have students either bring flashlights or construct lanterns from yellow construction paper to use in giving hand signals. (Instructions in Supplementary Materials)

2. When you are ready for section 2, have students read the second section (or read it to them). Let them practice making the hand signals as you discuss them, using the lanterns they have constructed.

Section 3

1. In preparation for section 3 you may want to provide some practice in using the hand signals by having students make the signals as you call out the messages and then make the hand signals yourself and let the students say what they mean.

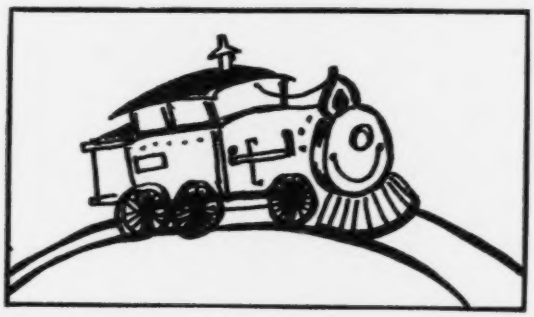
2. Divide the class into small groups to make up the play. Read the instructions to them. Suggest that each group have an engineer, a conductor, a brakeman, and passengers. To get them started you might ask what could be happening up ahead to make it necessary for the engineer to apply the brakes. Why would the engineer need to slow down and stop? Why would he need to back up? How could the problem be solved so that he could proceed?

3. After the students have put on their plays for the whole group, review the fact that they were able to use the signals because they all knew what they meant. Ask students to suggest some messages the engineer and brakeman could not give to each other with the whistle signals and lantern signals. Keep the list for use in lesson 6.

Communication Systems
Lesson 5
Student

Language C

RAILROAD SIGNALS



1. Engineer Joe drives a big railway locomotive. Sometimes he must communicate with other members of the train crew back in the train. Sometimes he must communicate with people outside of the train. He does it with short or long toots on his train whistle: Toot! or Tooooooooot!

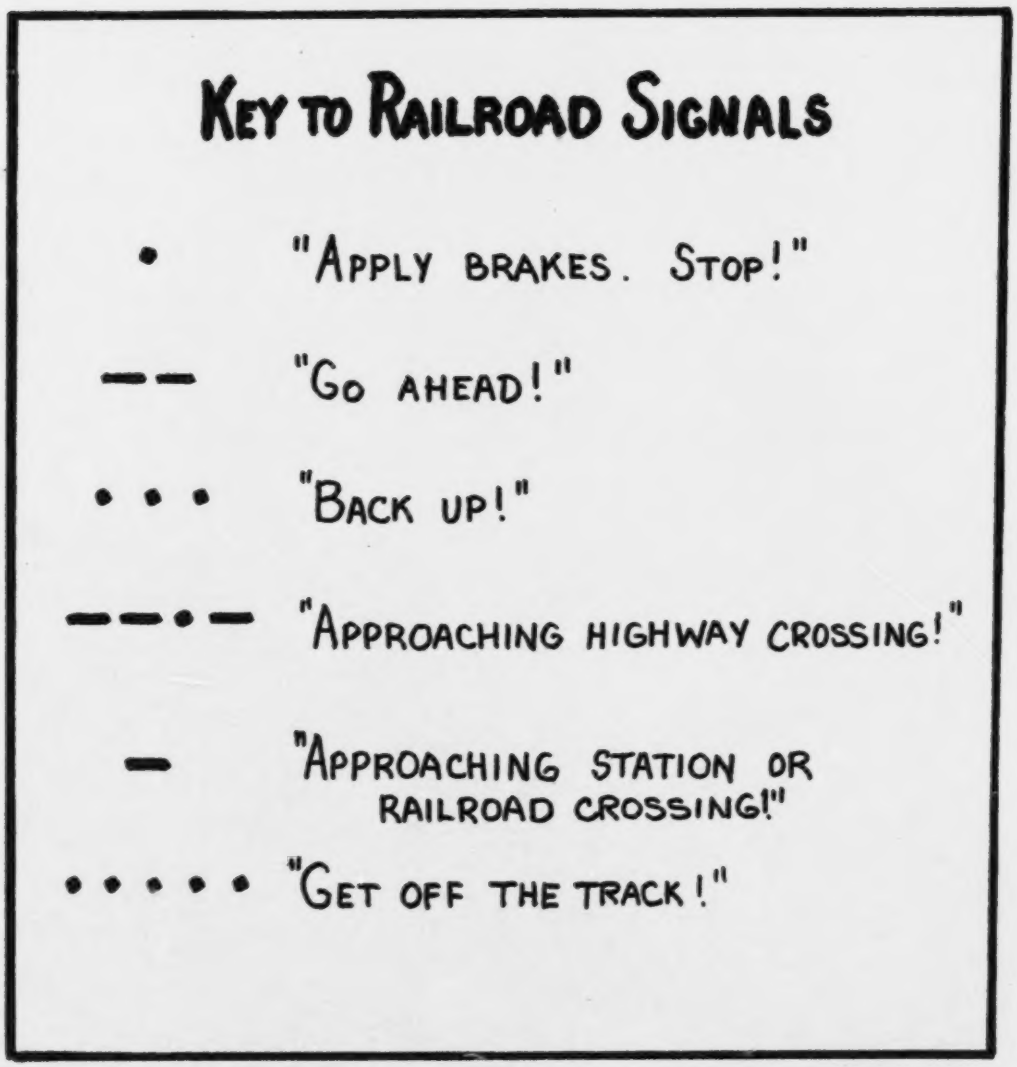
Try making a short toot.
Try making a long toot.
Try putting long and short toots together.

Here are some whistle messages Engineer Joe blows on his whistle.

Tooooooooot! Tooooooooot!
Toot! Toot! Toot!
Toooooooooooooot!

Try out Engineer Joe's messages.
Do you know what they mean?
How do you think the train crew knows what they mean?

Here is the key to the signals Engineer Joe uses to communicate with when he is running the train. The dot means a short toot. The dash means a long toot. Use the key to find out what Engineer Joe was saying.


KEY TO RAILROAD SIGNALS
• "APPLY BRAKES. STOP!"
— — "GO AHEAD!"
• • • "BACK UP!"
— — • — "APPROACHING HIGHWAY CROSSING!"
— "APPROACHING STATION OR RAILROAD CROSSING!"
• • • • • "GET OFF THE TRACK!"

This set of signals is a communication system for railway people. It is made of two kinds of toots that can be put together in different ways. Can you think of some other combinations that could be used?

2. Brakeman Bill works on Engineer Joe's train. Sometimes he must communicate with Engineer Joe. He does it by making a signal with a lantern. Here are the signals Brakeman Bill uses.

Practice giving messages using these signals.

COMMUNICATING WITH LANGUAGE

PURPOSE:

To review some characteristics of a communication system and to then apply them to human language.

MATERIALS:

Props for doing TV commercials

Student lesson, "Communicating with Language," to be passed out

Picture of TV announcer to put on overhead (In Supplementary Material)

SUGGESTED PROCEDURE:

(Note: This lesson will take about three days.)

1. On the first day show the picture of Andy Announcer (see Supplementary Material) on the overhead (or reproduce it in some other way) and read the paragraph below the picture with your students.

   Ask some questions such as

   How is the director communicating? (Gesture)

   Who is Andy trying to communicate with? (Anyone watching TV)

   Can he tell us about Kruspy Krinches without saying a word? (Not very well)

2. Ask students to plan a commercial to do the next day. They could work in groups of three (cameraman, director, and announcer). Ask them to bring objects from home that they may want to sell, or provide such things as pop bottles, cereal and soap boxes, Keeenex, etc., yourself. This activity provides an opportunity for playing with words, for drama, and for oral composition.

3. The second day have students present their commercials. After each commercial, have students point out what gestures have been used and what other means of communication. (Try to get them to say "language" or "words.")

4. Hand out student lesson (probably on a third day) and read the first two sections with your students. Have them find the pictures that illustrate the various ways of communicating and match the messages with the pictures. These sections review the concepts studied in the five previous lessons. Emphasize that in each case the communication is accomplished without saying a word.

5. When you come to the riddle, stop for discussion. The answer, of course, is "human language." You could give a clue by putting on the board the following letters:

   h_m_n l_ng_ _g_

6. Begin section 4 by asking if students think language is a communication system and why. Invite some opinions and then work through the section with the students, leading them to see that human language shares the characteristics of other communication systems. The signals we use are "words." They have special meaning assigned to them. The cartoon shows that humans must know the system and understand the meaning of the words in order to communicate. (Incidentally, it also points up the fact that there are different human languages.)

   The final question introduces several things that need not be labored but which will be developed in depth in other units: parts go together in a special way, and students already know how to put them together. Have them prove this by putting the words in each box together to form sentences:

   The cat walks by himself.

   Do you understand this system? (Or, You do understand this system.)

   You have eaten your Wheaties today. (Or, Have you eaten your Wheaties today?)

7. Have students, working in groups, make a list of some things they can do with language that they can't do with other communication systems. Have them report back to the whole group and list their suggestions on the board. Compare their lists with the lists they made in previous lessons of things they couldn't do with the systems they were studying. They should discover that they can communicate anything they need to with human language.

COMMUNICATING WITH LANGUAGE

1. People can communicate in many ways without saying a word.

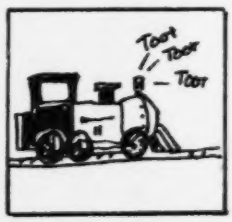
   They can use signs to give warnings or directions.

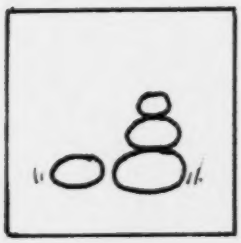
   They can use sounds.

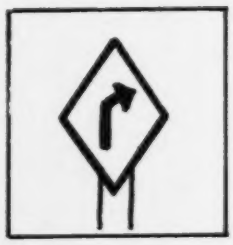
   They can use facial expressions.

   They can use gestures.

   Find the pictures that illustrate each of these ways.







2. When we communicate we give special meanings to things that do not naturally have these meanings. Which of the pictures above illustrate each of the following meanings?

   "Be quiet."

   "Get out of the way. Train is coming."

   "Get out of the way. Fire engine is coming."

   "Turn right."

   "Danger! Turn left."

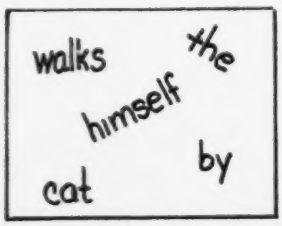
   "I'm happy."

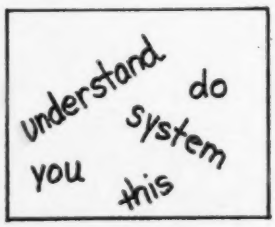
3. Here is a riddle for you:

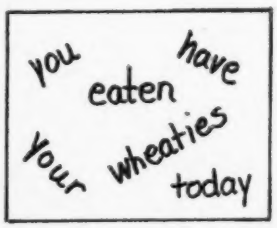
People have another communication system. It is the most useful system of all. You use it every day. You can use it when the other systems won't work. All human beings know how to use it. What is it?

4. Do you know how language is like other communication systems? This section will help you find out.

Here are some of the signals we use in language. What are they?







Do they have a special meaning?

Do the parts go together in a special way? How would you put the words in each of the boxes together?

Do the people who use them have to understand the meaning?

Are these people communicating? Why or why not?

Are these people communicating? Why or why not?

5. Make a list of some things you can do with language that you can't do with other communication systems.

SUPPLEMENTARY MATERIAL FOR UNIT I--

"Communication Systems"

Language C

This envelope contains the following:

1. A chart of Indian signs to be used on the overhead or made into a wall chart for Lesson 1

2. A set of cards with pictures with symbolic meaning and words to match them with for Lesson 2

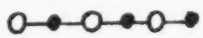
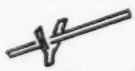
3. A chart of facial expressions for Lesson 3

4. A chart giving the key to railroad whistle signals for Lesson 5

5. Instructions for making lanterns for Lesson 5

6. A picture of a television announcer to be used on the overhead for Lesson 6

INDIAN SYMBOLS AND THEIR MEANINGS

Arrowhead = Be Alert	Hogan = Permanent Home
Crossed Arrows = Friendship	Broken Arrows = Peace
Bear Track = Good Omen	Horse = Journey
Falling Rain	 Days and Nights
Two Stones = You Have Found The Way	Stick in the Ground = You Have Found The Way
Stone to the Right of Other Stones = Turn Right	 Long Stick Sticking Long Way Out of Notch = Go a Short Way
Stone to Left of Other Stone = Turn Left	Short Stick Sticking Out of Notch Short Way = Go a Long Way
Three Stones Piled Up = Danger	Paths Crossing

add

+

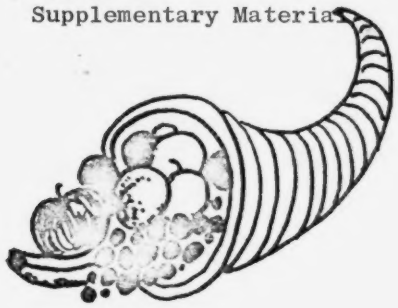
divide

÷

equal

=

turn right



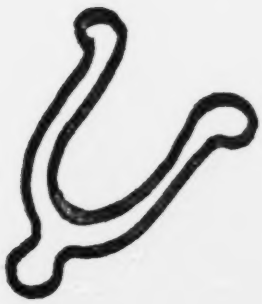
money

plenty

$ ¢

make a wish

more than
less than



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General Electric

barber shop

phone company

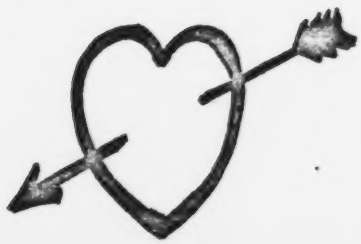
railroad crossing

United States

good luck

peace

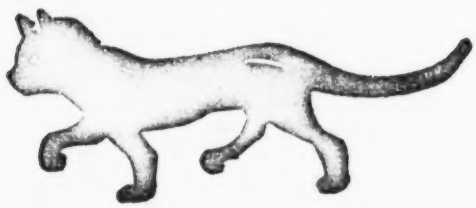
love



Rx

bad luck

drugstore

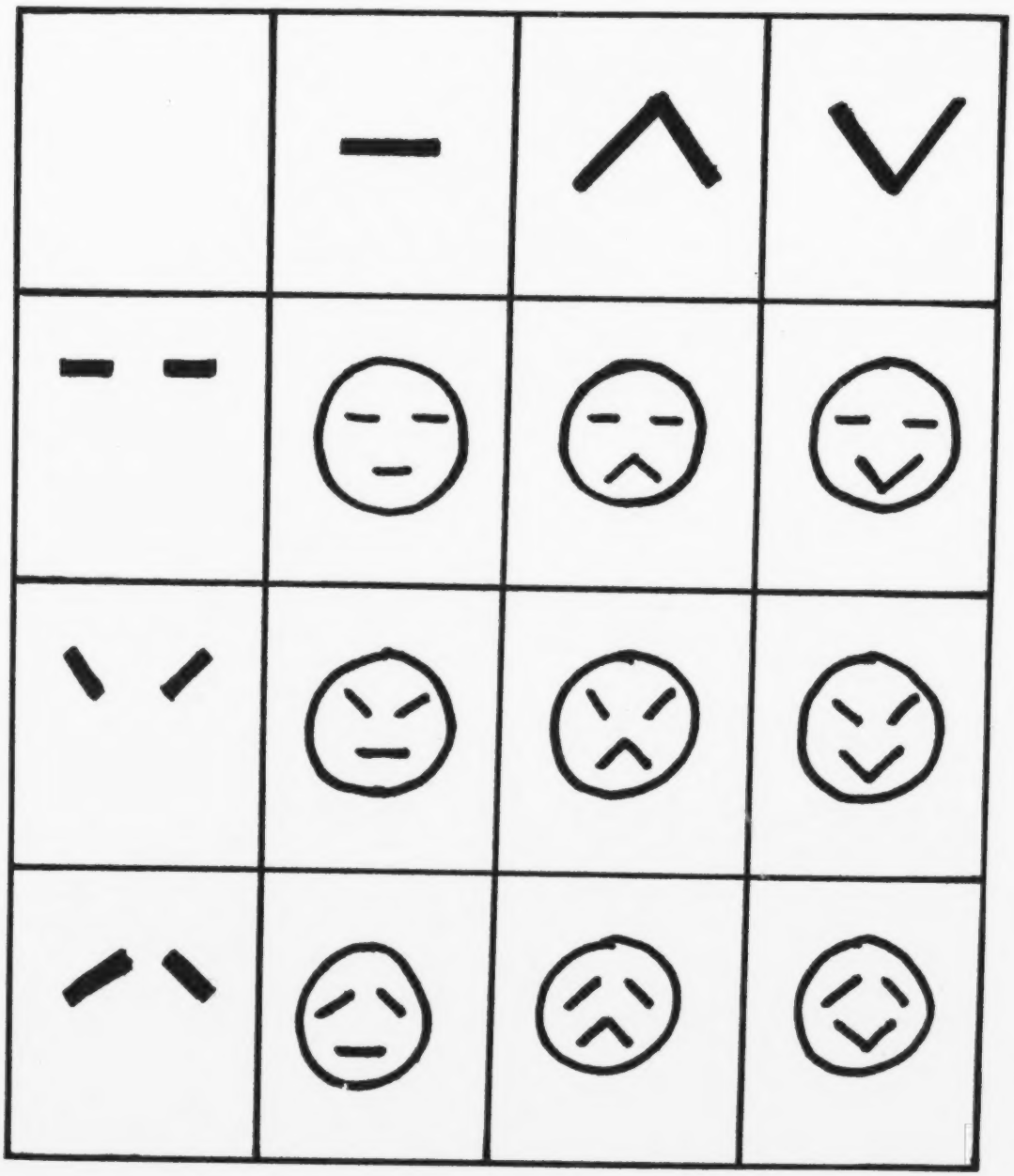


stop

poison

Communication Systems
Lesson 3
Supplementary Material

Language C



What do you think each face is saying?

KEY TO RAILROAD SIGNALS

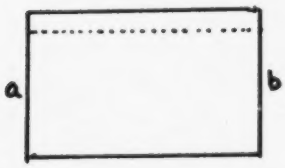
•	"APPLY BRAKES. STOP!"
— —	"GO AHEAD!"
• • •	"BACK UP!"
— — • —	"APPROACHING HIGHWAY CROSSING!"
—	"APPROACHING STATION OR RAILROAD CROSSING!"
• • • • •	"GET OFF THE TRACK!"

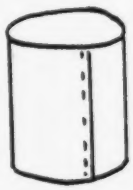
Communication Systems
Lesson 5
Supplementary Material

Language C

MAKING LANTERNS

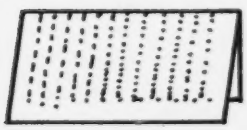
1. Cut a one inch strip off long edge of paper. Save for handle. Glue one short edge (a) of remainder to other short edge (b) to form tube.

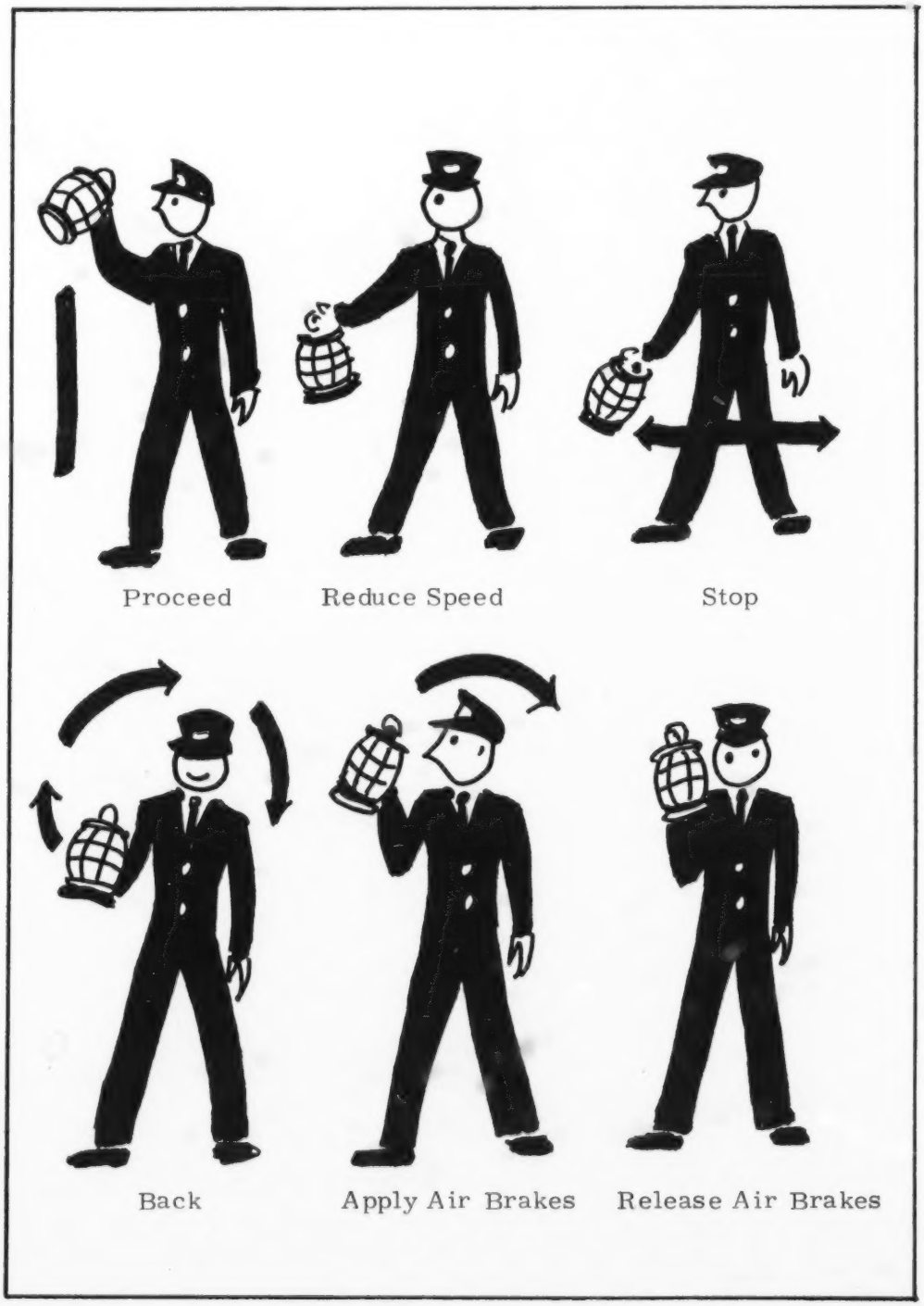




Attach handle.

2. Use method above, but before gluing large piece, fold it lengthwise and cut partway through fold at narrow intervals. Then cut out every other strip. Unfold and glue. Paste two narrow strips around the lantern. Attach handle.




Proceed
Reduce Speed
Stop
Back
Apply Air Brakes
Release Air Brakes

This is Andy Announcer. He is a TV announcer about ready to advertise Kruspy Krinches, the super Krinchy breakfast cereal. The cameraman is about ready to turn the cameras. The director is giving the signal that means, "Stand by."